WHAT IS CLAIMED IS:

1. An automated teller machine for handling a paper money, comprising,

a paper money path for transferring the paper money along a predetermined direction, and

a detector for measuring a condition of the paper money, comprising a light beam emitter for emitting a light beam toward the paper money, and a light beam receiver for receiving at least one of the light beam reflected by the paper money and the light beam passing through the paper money.

2. An automated teller machine according to claim 1, further comprising a paper money deforming device for applying to the paper money at least one of a tension in at least one of a first direction parallel to the predetermined direction and perpendicular to a paper money thickness direction and a second direction perpendicular to the predetermined direction and the paper money thickness direction, a compression force in at least one of the first and second directions, and a pair of forces away from each other in at least one of the first and second directions while directions of the forces are opposite to each other, so that at least one of a width of a clearance in the paper money extending from an edge of the paper money and a width of a clearance in the paper money prevented from extending from the edge of the paper money is expanded by the paper money deforming device.

3. An automated teller machine according to claim 2, wherein the at least one of the tension, the compression force and the pair of forces is applied to the paper money at at least one of upstream and downstream sides of the detector in the predetermined direction.

4. An automated teller machine according to claim 2, wherein the paper money deforming device includes at least one roller rotatable on an axis parallel to the second direction and a rotatable supplemental roller, the roller includes a tapered surface adapted to contact the money paper in the second direction and to be pressed against a peripheral surface of the supplemental roller, and the tapered surface includes elastomer.

5. An automated teller machine according to claim 4, wherein the roller includes a pair of the tapered surfaces, and the tapered surfaces is directed to the same direction.

6. An automated teller machine according to claim 1, wherein the detector detects an existence of at least one of a clearance in the paper money extending from an edge of the paper money and a clearance in the paper money prevented from extending from the edge of the paper money as the condition of the paper money, when a luminous degree of the at least one of the light beam reflected by the paper money and the light beam passing through the paper money detected

by the light beam receiver is more than a predetermined value.

7. An automated teller machine according to claim 1, wherein the light beam receiver detects at least one of a luminous degree of the at least one of the light beam reflected by the paper money and the light beam passing through the paper money received by the light beam receiver, and a contrast in the at least one of the light beam reflected by the paper money and the light beam passing through the paper money received by the light beam receiver so that a rigidity of the paper money as the condition of the paper money is estimated on the basis of the at least one of the detected luminous degree and the detected contrast.

8. An automated teller machine according to claim 6, wherein the luminous degree is determined on the basis of at least one of an average luminous intensity, a maximum luminous intensity and a total amount of luminous flux in the at least one of the light beam reflected by the paper money and the light beam passing through the paper money, received by the light beam receiver.

9. An automated teller machine according to claim 7, wherein the luminous degree is determined on the basis of at least one of an average luminous intensity, a maximum luminous intensity and a total amount of luminous flux in the at least one of the light beam reflected by the paper money and the light

beam passing through the paper money, received by the light beam receiver.

10. An automated teller machine according to claim 7, wherein the contrast is determined on the basis of at least one of a standard deviation of luminous intensity and a difference between a maximum luminous intensity and a minimum luminous intensity in the at least one of the light beam reflected by the paper money and the light beam passing through the paper money, received by the light beam receiver.

11. An automated teller machine according to claim 1, wherein the light beam receiver detects at least one of a luminous degree of the at least one of the light beam reflected by the paper money and the light beam passing through the paper money received by the light beam receiver, and a contrast in the at least one of the light beam reflected by the paper money and the light beam passing through the paper money received by the light beam receiver so that a rigidity of the paper money as the condition of the paper money is estimated on the basis of the at least one of the detected luminous degree and the detected contrast, when the luminous degree of the at least one of the light beam reflected by the paper money and the light beam passing through the paper money detected by the light beam receiver is not more than a predetermined value.

12. An automated teller machine according to

claim 11, wherein the luminous degree is determined on the basis of at least one of an average luminous intensity, a maximum luminous intensity and a total amount of luminous flux in the at least one of the light beam reflected by the paper money and the light beam passing through the paper money, received by the light beam receiver.

13. An automated teller machine according to claim 11, wherein the contrast is determined on the basis of at least one of a standard deviation of luminous intensity and a difference between a maximum luminous intensity and a minimum luminous intensity in the at least one of the light beam reflected by the paper money and the light beam passing through the paper money, received by the light beam receiver.

14. An automated teller machine according to claim 7, wherein the light beam receiver detects at least one of the luminous degree of the at least one of the light beam reflected by both non-printed area and printed area of the paper money and the light beam passing through the both non-printed area and printed area of the paper money received by the light beam receiver, and a contrast in the at least one of the light beam reflected by the both non-printed area and printed area of the paper money and the light beam passing through the both non-printed area and printed area of the paper money, received by the light beam receiver.

15. An automated teller machine according to claim 14, wherein the detector judges the rigidity of the paper money to be less than a predetermined rigidity when the at least one of the luminous degree and the contrast is less than a predetermined value.

16. An automated teller machine according to claim 7, wherein the light beam receiver detects at least one of the luminous degree of the at least one of the light beam reflected by a non-printed area of the paper money and the light beam passing through the non-printed area of the paper money received by the light beam receiver, and a contrast in the at least one of the light beam reflected by the non-printed area of the paper money and the light beam passing through the non-printed area of the paper money, received by the light beam receiver.

17. An automated teller machine according to claim 16, wherein the detector judges the rigidity of the paper money is less than a predetermined rigidity when the luminous degree is less than a predetermined value.

18. An automated teller machine according to claim 16, wherein the detector judges the rigidity of the paper money is less than a predetermined rigidity when the contrast is more than a predetermined value.

19. An automated teller machine according to claim 2, wherein the paper money deforming device includes at least one roller rotatable on an axis

parallel to the second direction and a rotatable supplemental roller, the roller includes first and second peripheral surfaces adapted to contact the money paper in the second direction and to be pressed against a peripheral surface of the supplemental roller, frictional coefficients of the first and second surfaces with respect to the paper money are different from each other, and the first and second surfaces include elastomer.